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Please find below and/or attached an Office communication concerning this application or proceeding.

8m

Office Action Summary	Application No. 09/810,452	Applicant(s) SAUTTER ET AL.	
	Examiner DANG T. TON	Art Unit 2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 20-26, and 30-37 is/are rejected.
- 7) ☒ Claim(s) 18, 19 and 27-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,7,8,9,10,17,20,21,23,25,30,31, and 32 rejected under 35 U.S.C. 102(e) as being anticipated by Hart et al.(6,269,404).

For claims 1,2,7,8,9,10,17,20,21,23,25,30,31, and 32, Hart et al. disclose a virtual network architecture for connectionless LAN backbone comprising a message field containing message information (see column 3 lines 45-50); and a plurality of destination node addresses each identifying a different final destination in the plurality of interconnected communication networks to receive the frame to facilitate transmission of the frame to different destination nodes (see column 3 lines 38-40); further comprising an originator's address identifying an originator of the message information (see column 3 line 45);

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wherein at least one of the plurality of addresses comprises a home network identifier and an identifier of a terminal device within the home network(see column 3 line 45);

further comprising an extended network identifier for the at least one of the plurality of addresses, identifying a network other than the home network to which to send the message information to the terminal (see a virtual net server, column 3 lines 1-2);

further comprising an extended address indicator indicating whether the at least one of the plurality of addresses has an extended network identifier(see column 3 lines 14-18);

a transmission frame for transporting information in a plurality of interconnected communication networks including a plurality of communication nodes comprising:

a message field containing message information a plurality of addresses identifying a plurality of destination nodes in the plurality of interconnected communication networks (see column 3 lines 38-40), and

a user-defined indicator for use by an application layer process (see column 3 lines 43-45);

determining if any of the plurality of addresses contained in the header corresponds to a device serviced by the communication node (see ATM box 100 in figure 2); and

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determining a routing disposition for the plurality of addresses contained in the header that do not correspond to the device serviced by the communication node (see column 10 lines 22-32) wherein the routing disposition is determined according to routing information available at the communication node(see column 10 lines 22-32);

wherein the routing disposition for the plurality of addresses is determined only for the plurality addresses to which the message has not been sent (see column 9 lines 13-16);

means for examining the plurality of addresses in the header(see column 10 lines 22-32);

means for sending the message to a terminal device within the network containing the communication node if one of the plurality of addresses in the header corresponds to the terminal(see column 10 lines 22-32);

means for determining a routing disposition for the plurality of addresses in the header that do not correspond to the terminal device(see column 10 lines 22-32); and

means for sending the message to addresses having the same routing disposition;

wherein the means for determining a routing disposition is a network router with a routing table(see column 10 lines 22-32);

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an originating terminal in a plurality of interconnected communication networks, the originating terminal comprising; a message generation device generating a message for delivery to a plurality of destination terminals in the interconnected networks each serving as a final destination for the message; a network interface device coupled to the message generation device, and in response to receiving the message, generating a transmission having a message and a header containing addresses each identifying a different one of the plurality of destination terminals to receive the message(see column 10 lines 22-32); and

a transmitter coupled to the network interface device, transmitting the transmission frame to a communication node in one of the interconnected networks for routing to each of the different destination terminals identified by the addresses(see column 10 lines 22-32);

a method of generating a message addressed to a plurality of terminals among a plurality of interconnected communication networks, the method comprising:

generating a message for delivery to the terminals each serving as a final destination for the message (see source node in column 3 line 47 which transmits message to the destination);

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generating a header containing a plurality of addresses each identifying a different one of the terminals to receive the message (see column 3 lines 38-40), and transmitting a transmission frame including the header and the message to a communication node among the plurality of communication networks for routing to each of the different addressed terminals(see column 3 lines 38-40); and

wherein generating the header includes generating one of the plurality of addresses having a basic address identifying a terminal within one of the plurality of interconnected networks, and an extended address identifying the one the plurality of interconnected networks containing the terminal (see column 3 lines 1-2 and 45).

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

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U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart et al. in view of Hong et al.

For claim 3, Hart et al. disclose all the subject matter of the claimed invention with the exception of number hop indicator indicating number of transmission of the message across the interconnections network. Hong et al. from the same or similar fields of endeavor teaches a provision of nodes being identified which channel and frequency, hop number, in the network (see column 6 lines 51-52). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the number hop indicator indicating number of transmission of the message across the interconnections network

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invention as taught by Hong et al. in the communications network of Hart et al.

The number hop indicator indicating number of transmission of the message across the interconnections network can be implemented/modified into the network of Hart et al since Hart does teach VLAN . The motivation for using number hop indicator indicating number of transmission of the message across the interconnections network e as taught by Hong et al. into the communications network of Hart being that it provides much higher utilizations.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart et al. in view of Le Boudec et al. For claim 4, Hart et al. disclose all the subject matter of the claimed invention with the exception of indicating a level of priority for scheduling transmission of the message in

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interconnections network . Le Boudec et al. from the same or similar fields of endeavor teaches indicating a level of priority for scheduling transmission of the message in interconnections network (see column 3 line 49). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the precedence indicator indicating a level of priority for scheduling transmission of the message information across the interconnected networks as taught by Boudec in the communications network of Hart.

The precedence indicator indicating a level of priority for scheduling transmission of the message information across the interconnected networks can be implemented/modified into the network of Hart since it does teach a network traffic management. The motivation for using a precedence indicator indicating a level of priority for scheduling transmission of the message information across the interconnected networks as taught by Boudec into the communications network of Hart being that it provides the system more reliable since it prevents congestion.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-6,12-14,22, and 23 are rejected under 35 U.S.C.

103(a) as being unpatentable over Hart et al. in view of Byers et al. (5,809,543).

For claims 5-6,12-14,22, and 23 ,Hart et al. disclose all the subject matter of the claimed invention with the exception of a security indicator indicating a level of security of the message and a message delivery status indicator in the network . Byers et al. from the same or similar fields of endeavor teaches a provision of a security indicator indicating a level of security of the message and a message delivery status indicator in the network(see column 53 lines 54-55 and column 42 line 51). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use a security indicator indicating a level of security of the message and a message delivery status indicator in the network as taught by Byers et al. in the communications network of Hart.

The security indicator indicating a level of security of the message and a message delivery status indicator in the network can be implemented/modified into the network of Hart

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since it does teach flow control of the message . The motivation for using a security indicator indicating a level of security of the message and a message delivery status indicator in the network as taught by Byers et al. into the communications network of Hart being that it provides much higher utilizations and provides the security for the network.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart et al. in view of Holden et al(6,396,809).

For claim 11, hart et al. disclose all the subject matter of the claimed invention with the exception of end of routing indicator identifying the last address in the transmission frame in a communications network. Holden et al. from the same or similar fields of endeavor teaches a provision of the end of routing indicator identifying the last address in the

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transmission frame (see column 3 lines 16-17). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the end of routing indicator identifying the last address in the transmission frame as taught by Holden et al. in the communications network of Hart et al.

The end of routing indicator identifying the last address in the transmission frame can be implemented/modified into the network of Hart et al. since it does teach transmission frame. The motivation for using end of routing indicator identifying the last address in the transmission frame as taught by Holden et al. into the communications network of Hart et al. being that it provides much higher utilizations while maintaining the guaranteed QoS.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart in view of Danknick (5,613,096).

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For claims 15, Hart et al. disclose all the subject matter of the claimed invention with the exception of acknowledgement indicator indicating that the message information is printed at one of the addresses in the communications network. Danknick from the same or similar fields of endeavor teaches a provision of acknowledgement indicator indicating that the message information is printed at one of the addresses in the communications network (see column 26 lines 4-5). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the acknowledgement indicator indicating that the message information is printed at one of the addresses in the communications network as taught by Danknick in the communications network of Hart.

The acknowledgement indicator indicating that the message information is printed at one of the addresses in the communications network can be implemented/modified into the network of Hart since it does teach VLAN and plurality of addresses . The motivation for using acknowledgement indicator indicating that the message information is printed at one of the addresses in the communications network as taught by Danknick into the communications network of Hart being that it provides a indication of printing message.

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagami et al. (6,356,553) in view of Ahuja et al. (5,946,679).

For claim 26, Nagami et al. disclose a system/method comprising:

a home network routing table having recorded therein addresses of terminals in the home network (see H1 in figure 1),
an routing table having recorded therein routing information for routing messages destined for at least one of the plurality of networks (see R1 in figure 1); and

a router, coupled to the home network routing table and the internet work routing table (see R2 in figure 2), the router identifying as a home address an address among the plurality of destination addresses in the header that is present in the home network routing table, and determining a routing disposition for addresses among the plurality of destination addresses that are

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not present in the home network routing table, wherein the routing disposition is determined based on the routing information recorded in the routing table (see column 7 lines 43-61) .

Nagami et al. disclose all the subject matter of the claimed invention with the exception of determining a routing disposition for addresses among the plurality of destination addresses that are not present in the home network routing table, wherein the routing disposition is determined based on the routing information recorded in the routing table . Ahuja et al. from the same or similar fields of endeavor teaches a provision of determining a routing disposition for addresses among the plurality of destination addresses that are not present in the home network routing table, wherein the routing disposition is determined based on the routing information recorded in the routing table (see column 6 lines 36-39) . Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the determining a routing disposition for addresses among the plurality of destination addresses that are not present in the home network routing table, wherein the routing disposition is determined based on the routing information recorded in the routing table as taught by Ahuja et al. in the communications network of

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Nagami et al. for the purpose of making the system more reliable since it forwards messages to the correspondent addresses.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 24, and 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hart.

For claims 16, 24, and 33, Hart et al. disclose all the subject matter of the claimed invention with the exception of using a program product apparatus in the communications network as recited in claim 33 and using a radio transmitter as recited in claims 16 and 24. However, using the program for the apparatus and the radio transmitter are well-known in the art. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the a program product apparatus and the radio transmitter in the

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communications network in the communications network of Hart for the purpose of making the program product apparatus.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shishido et al. (5,570,202) in view of Hart et al.

For claims 34-37, Shishido et al. disclose a system/method comprising:

storing a first frame (see box 3f in figure 2);
receiving a second frame(see box 3f in figure 2);
determining if an originator's address in the second frame matches an originator's address in the first frame(see box 3d in figure 2); and

ordering the first and second frame based on the frame sequence numbers in the first and second frames(see box 3e in figure 2).

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wherein each frame of the message includes a delivery indicator associated with each of the destination addresses, the method further comprising

setting the delivery indicator of one of the destination addresses if the frame is delivered to the destination address(see box 2b in figure 2).

further comprising determining if one or more frames of the message are not received at a destination address, and requesting retransmission of only those frames(see column 3 lines 8-9).

wherein the determining if a frame of a message is not received and requesting retransmission of the frame is performed in a transport layer of a set of communication protocols (see column 3 lines 8-9).

Shishido et al. disclose all the subject matter of the claimed invention with the exception of each frame having a plurality of destination addresses in a communications network. Hart et al. from the same or similar fields of endeavor teaches a provision of each frame having a plurality of destination addresses in a communications network(see column 3 lines 38-40). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the each frame having a plurality of destination addresses in a communications

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network as taught by Hart et al. in the communications network of Shishido et al.

The each frame having a plurality of destination addresses in a communications network can be implemented/modified into the network of Shishido et al. since it does teach frames and VLAN. The motivation for using each frame having a plurality of destination addresses in a communications network as taught by Hart et al. into the communications network of Shishido et al. being that it provides point to multi-point network.

11. Claims 18-19 and 27-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12 .Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T. TON whose telephone number is 571-272-3171. The examiner can normally be reached on MON-WED, 5:30 AM-6:00 PM and Thur 5:30-9:30 A.M.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Ton



DANG TON
PRIMARY EXAMINER